



Intelligent Transportation Systems

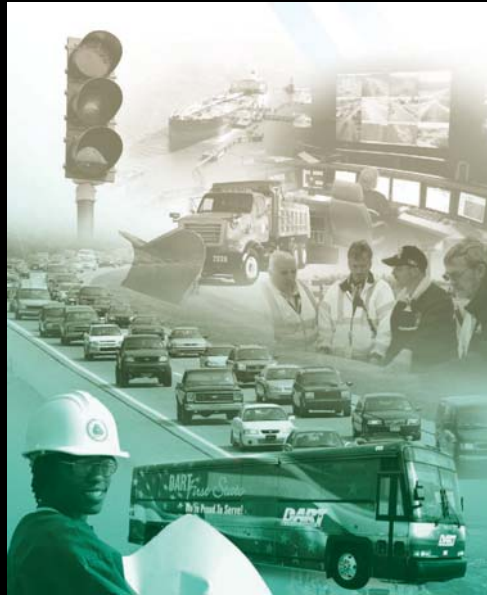
**To: Delaware Energy Plan
Transportation Energy Use Work
Group**

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What is ITS?

“ITS improves transportation safety and mobility and enhances productivity through the use of advanced information and communications technologies.” - RITA



ITS in Delaware

- DelTrac

- E-ZPass Electronic Toll Collection
- Traffic Adaptive Signal Systems
- Transportation Management Teams
- Works with other area agencies to improve transportation
- More on this later today
by Gene Donaldson



<http://www.deldot.gov/information/projects/tmt/pdfs/DelTrac%20TMP%20Brochure%20050106.pdf>

ITS Around the Country

- New Jersey

- Integrated traffic signal systems
- Incident management systems
- Traffic management systems
- Traffic information systems
- Other ITS components
 - Dynamic/Variable Message Signs
 - Closed circuit television surveillance
 - Highway Advisory Radio
 - Fiber optic communication network



<http://www.state.nj.us/transportation/eng/elec/ITS/>

<http://www.state.nj.us/transportation/publicat/Facts/roads.shtml#OPERATIONS>

ITS Around the Country

- Maryland

- Coordinated Highways Action Response Team (CHART)
- 220 Closed Circuit Television Cameras
- Location of Vehicles with Cellular Signals
- Variable Message Signs



ITS Around the Country

- Pennsylvania

- Incident Command Center
- Ramp Metering
- Traffic Cameras
- Programmable Message Signs and Traffic Radio



<http://itspa.blogspot.com/search/label/Ramp%20Meters>
http://www.timesleader.com/news/20071127_21penndot_sd_3a_ART.html

ITS Around the Country

- New York State

- New York MOVES

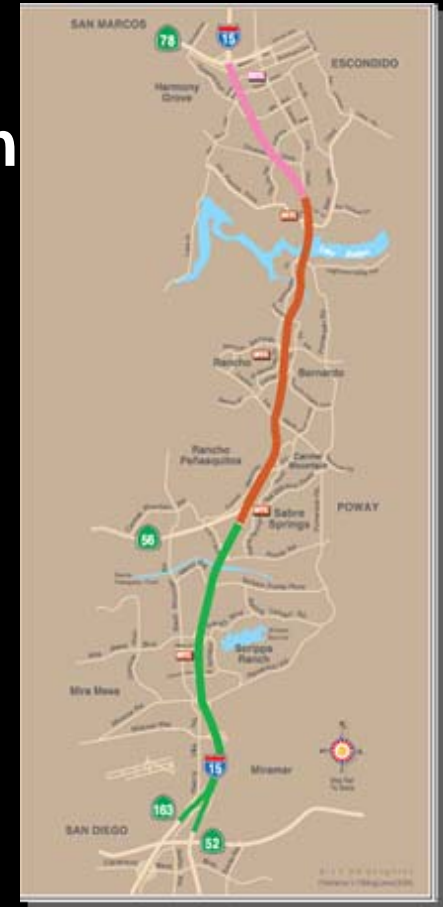
- NYS HELP program
 - Travel Time Information Systems
 - Small Urban and Rural ITS Toolbox



ITS Around the Country

- **San Diego Association of Governments**

- **I-15 ICMS Corridor in San Diego**
 - 511 Advanced Traveler Information System (511 ATIS)
 - Bus Rapid Transit (BRT) system
 - Transit Oriented Development
 - Ramp Metering
 - Virtual Corridor Transportation Management Center (VCTMC)



http://www.itsdocs.fhwa.dot.gov/JPODOCS/REPTS_TE/14395_files/section_01.htm#intro_docconts

ITS Around the Country

- Minnesota

- Minnesota Guidestar

- 511 and 511mn.org
 - Mn/PASS I-394 "HOT" Lanes
 - CAD - CARS Integration



http://www.dot.state.mn.us/guidestar/about_guidestar.html

<http://www.dot.state.mn.us/guidestar/projects.html>

ITS Around the World

- Japanese Ministry of Land, Infrastructure, Transportation and Tourism
 - Services Provided Through ITS
 - Provide driving and road conditions information
 - Pedestrian route guidance/Vehicle-pedestrian accident avoidance
 - Automatic emergency notification
 - Optimization of traffic flow



ITS Around the World

• Australia

- ITS Australia - aggressive targets of zero deaths and zero congestion
 - Drive Time (a real time traffic information sign)
 - Incident detection systems
 - Weigh-In Motion System.
 - Sydney Coordinated Adaptive Traffic System (SCATS)
 - Smart Glasses to warn drowsy drivers



<http://www.its-australia.com.au/KMXServer3/Default.aspx?tabid=61>
<http://www.its-australia.com.au/KMXServer3/Default.aspx?tabid=104>
<http://www.its-australia.com.au/kmxserver3/>
<http://www.its-australia.com.au/KMXServer3/Portals/0/ITSAHanbook.pdf>

ITS Around the World

- United Kingdom

- ITS UK

- Smart Point
 - Variable Message Signs
 - Motorway car share lanes
 - Electronic Toll System
 - Digital Traffic Enforcement System
 - Congestion Pricing



<http://www.tfl.gov.uk/roadusers/congestioncharging/6710.aspx>

<http://www.its-uk.org.uk/news/newsletters.aspx>

www.ipa.udel.edu

ITS Around the World

- China

- Hong Kong Intelligent Transport System
 - Traffic Control and Surveillance System (TCSS)
 - Area Traffic Control (ATC)
 - Traffic Management and Information Centre (TMIC)
 - Sends information wirelessly to commuters
 - Deployed a GPS-based vehicle tracking and fleet management system

Intelligent Transportation Systems

Thank You!